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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/581,266	06/01/2006	Takahisa Ozawa	80508(302721)	3158

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EDWARDS ANGELL PALMER & DODGE LLP  
James E. Armstrong, IV  
P.O. Box 55874  
Boston, MA 02205

EXAMINER
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GINSBERG, OREN ISAAC

ART UNIT	PAPER NUMBER
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3764

MAIL DATE	DELIVERY MODE
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10/13/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



<b>Office Action Summary</b>	<b>Application No.</b> 10/581,266	<b>Applicant(s)</b> OZAWA ET AL.	
	<b>Examiner</b> OREN GINSBERG	<b>Art Unit</b> 3764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 August 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 1 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |



## **DETAILED ACTION**

### ***Specification***

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7, 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whitaker 3,463,145 in view of Hsieh 5,702,332, in view of Lyons 4,332,381, and further in view of Hoshino 2002/1063231.

Regarding claims 1-3, 5-6, 11, Whitaker discloses an exercise device comprising a base 5 fixed in place, and a support portion 23 configured to support a part of the user's body such that at least a part of the user's own weight acts on a leg including a femoral region (deemed the user's legs dangle off the edge of the seat and thus touch the ground).



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Whitaker teaches the invention as substantially claimed, see above. However, Whitaker fails to disclose: a pair of foot plates mounted on the base for receiving bottoms of feet of the user.

Hsieh teaches a foot plate 16 mounted on the base for receiving bottoms of feet of the user.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Whitaker's base with Hsieh's foot plate in order to prevent the user from falling out of the chair when the chair is tipped forwards. It is noted that Hsieh only discloses one foot plate. However one of ordinary skill in the art would have found it obvious at the time of the invention to split the plate of Hsieh into two foot plates, as two foot plates is a functional equivalent to one foot plate for supporting the user's feet.

Whitaker in view of Hsieh teaches the invention as substantially claimed, see above. However, they fail to disclose: the foot plates being adaptable and configured to be movable relative to the base in up and down directions.

Lyons teaches a foot plate being adaptable and configured to be movable relative to the base in up and down directions (via the telescoping mechanism 41, 42, 43).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Whitaker's base with Hsieh's foot plate and further with Lyon's foot plate adjustment mechanism in order to accommodate users of different heights who wish to interface the foot plate.



Whitaker in view of Hsieh and further in view of Lyons teaches the invention as substantially claimed, see above, and further teaches a coupling mechanism (Whitaker: 8, 9, 10) configured to movably couple the support portion to the base such that a load acted on the leg by the user's own weight varies according to a relative positional displacement between each foot plate (Hsieh: 16) and a position of a center of gravity of the user (Whitaker: the change in tilt of the seat changes the center of gravity of the user and thus changes the amount of force the user has to use in their legs to balance on the seat against the supporting surface), and also configured to limit a movable direction of the support portion such that a direction of the relative positional displacement between each foot plate (Hsieh: 16) and the position of center of gravity is limited to a direction of flexion and extension of a knee joint of the user (Whitaker: tilt in the forward and rearward direction as seen in figures 1-2), a control unit (Whitaker: 24) electrically controlling at least one electric motor (Whitaker: 12) attached to the coupling mechanism to provide a load, and the saddle supporting the user's buttocks as the support portion (Whitaker: figure 3).

Whitaker in view of Hsieh and further in view of Lyons teaches the invention as substantially claimed, see above. However, they fail to disclose: a curved saddle support.

Hoshino teaches the saddle has a pair of curved recessed 14, 15 at its outer periphery configured that the femoral region of the user fit the recesses, the curved recesses are configured such that the open angle between the user's leg substantially corresponds to flexion and extension of the left and right knee joints (figures 8-9) under



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the condition that the user is in a sitting posture on the saddle and places their feet on the foot plates, the curved recesses are configured such that an open angle between the user's legs is in a range of 30-70 degrees (figure 8), a first bump formed at the forward side (adjacent stitching 36 at the front of the saddle as seen in figure 1), a second bump formed at the rearward side 19, the curved recesses are provided between the first and second bump (figure 1), a forward position of the saddle (next to elements 14, 15 by the front of the saddle as seen in figure 1) is positioned to be lower than a saddle center position with the curved recesses, and a rearward portion of the saddle 19 is positioned to be higher than the saddle center portion.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Whitaker's seat with Hoshino's ergonomic saddle in order to place the user's center of gravity directly over the seat to make the seat more comfortable and reduce aches and pains from sitting in the saddle for prolonged periods, as taught by Hoshino (paragraphs 0002, 0009).

Regarding claim 4, Whitaker in view of Hsieh, in view of Lyons, and further in view of Hoshino teaches the invention as substantially claimed, see above. However, they fail to disclose: the curved recesses are configured such that an inclination angle of the femoral region of the user relative to a vertical direction is in a range of 30-50 degrees under the condition.

However, it has been held in *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955) that "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine



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experimentation.” See in MPEP 2144.05 II. Whitaker does not positively disclose the range that the seat tilts forward, thus not providing the angle of inclination of the femoral region of the user. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to have the Whitaker seat tilt forward such that it provides an angle of inclination for the femoral region of the user within the range of 30-50 degrees in order to optimally exercise the user’s legs.

Regarding claims 7, 12, Whitaker in view of Hsieh, in view of Lyons, and further in view of Hoshino teaches the invention as substantially claimed, see above. However, they fail to disclose: a backrest detachably attached to a rear portion of the saddle.

However, it has been held in *In re Dulberg*, 289 F.2d 522, 523, 129 USPQ 348, 349 (CCPA 1961) that if it is desirable to make a part removable that is not manually removable, then it would have been obvious to one of ordinary skill in the art make that part removable. See in MPEP 2144.04 V C. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to make the backrest detachably attached to a rear portion of the saddle if the backrest needs to be repaired or replaced.

Claims 8, 10, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whitaker in view of Hsieh, in view of Lyons, in view of Hoshino, and further in view of Bavaresco 6,357,825.



Whitaker in view of Hsieh, in view of Lyons, and further in view of Hoshino teaches the invention as substantially claimed, see above, and further teaches the saddle is symmetrical along an axis in the length direction (Hoshino: figure 1).

Whitaker in view of Hsieh, in view of Lyons, and further in view of Hoshino teaches the invention as substantially claimed, see above. However, they fail to disclose: a saddle-length adjuster configured to change a length of the saddle in a forward and rearward direction, and a saddle-angle adjuster configured to change an inclination angle of an inner surface of the curved recess.

Bavaresco teaches a saddle-length adjuster 10, 11, 12, 18", 19" (figures 1, 2, 7) configured to change a length of the saddle in a forward and rearward direction, and a saddle-angle adjuster 10, 11, 12, 18", 19" (figures 1, 2, 7) configured to change an inclination angle of an inner surface of the curved recess.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Hoshino's saddle with Bavaresco's adjustable saddle in order to reduce stress to the buttocks and backbone, as taught by Bavaresco (column 2 lines 40-50).

Claims 8-9, 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whitaker in view of Hsieh, in view of Lyons, in view of Hoshino, and further in view of Jamieson 608,682.



Whitaker in view of Hsieh, in view of Lyons, and further in view of Hoshino teaches the invention as substantially claimed, see above, and further teaches the saddle is symmetrical along an axis in the length direction (Hoshino: figure 1).

Whitaker in view of Hsieh, in view of Lyons, and further in view of Hoshino teaches the invention as substantially claimed, see above. However, they fail to disclose: a saddle-width adjuster configured to change a length of the saddle in a width direction, and a saddle-length adjuster configured to change a length of the saddle in a forward and rearward direction.

Jamieson teaches a saddle-width adjuster 12, 15 (by sliding the seat outward along rail 12 as seen by the dotted lines in figure 1) configured to change a length of the saddle in a width direction, and a saddle-length adjuster 14, 15 (by sliding one of the sections forward thereby making the overall length of seat longer) configured to change a length of the saddle in a forward and rearward direction.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Hoshino's saddle with Jamieson's adjustable saddle in order to adjust the seat to the most comfortable position for the user, as taught by Jamieson (column 1 lines 12-21).

### ***Response to Arguments***

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.



***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to OREN GINSBERG whose telephone number is (571) 270-3074. The examiner can normally be reached on Mon-Fri, alternate Fri off, 7:30-5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, LoAn Thanh can be reached on (571) 272-4966. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/O. G./  
Examiner, Art Unit 3764

/LoAn H. Thanh/  
Supervisory Patent Examiner, Art Unit 3764